

## TCHEFUNCTE RIVER MARSHES CONSERVATION PROJECT

1. Project Name: Tchefuncte River Marshes Conservation Project
2. Entity Nominating the Project: Town of Madisonville and The Nature Conservancy
3. Contact Information:

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4. Total CIAP funds requested: \$1,176,670 State CIAP funds
5. Infrastructure funds proposed: none (included in match)

6. Location and Description of Project:

The Tchefuncte River Marsh Conservation Project is located in Sections 34, 35, 39, 43, T7S, R10E and Sections 2, 3, 37, T8S, R10E, in St. Tammany Parish, Louisiana. The approximately 1126-acre site occurs wholly within the incorporated limits of the Town of Madisonville, Louisiana and is located on the west flank of the Tchefuncte River, a state scenic stream, near its confluence with Lake Pontchartrain. The tract is located adjacent to and south of the Town of Madisonville, where the topography grades from pine-dominated flatwoods on Pleistocene deposits, to marsh- and cypress swamp-dominated wetlands on more recent Holocene age deposits. Louisiana State Highway 1077 (Lake Road) parallels the river and runs through the eastern side of the site. The project area is predominantly estuarine emergent marsh that grades from fresh marsh on the north, to intermediate marsh on the south. The marsh has been classified generally as "oligohaline wiregrass" sub-type. Fresher areas are dominated by cattails (*Typha* sp.) bulltongue (*Sagittaria latifolia*), spikerush (*Eleocharis* spp.) and maidencane (*Panicum hemitomon*). Marsh wiregrass (*Spartina patens*) is a primary dominant to the south. Sawgrass (*Cladium jamisense*) has greatly increased in prevalence across the site in recent years. The site has high plant species diversity and is one of the few sites in southeast Louisiana to be dominated by *Cladium* sawgrass.

**The primary focus of this project is to acquire the proposed project area and place it under conservation management and ownership with the Town of Madisonville.** Although the site possesses significant ecological quality, it requires careful stewardship to ensure long-term viability. Aerial photographs indicate the freshwater marsh may be opening up and degrading from land loss. Excessive damage from nutria populations has been evident. Also, erosion along the lake front is ongoing (as indicated by the receding shoreline near the old lighthouse), and may soon affect the site. The Town of Madisonville will consult The Nature Conservancy and other experts to develop a conservation management plan and to secure funding to implement necessary stewardship. In addition, the site is threatened by very rapid development in the northshore area. Development projects are occurring just north of the site and there have been several proposals for home construction south of the site along the lake front. With an estimated 30% increase in population overnight after Hurricane Katrina, St. Tammany Parish, one of the fastest growing parishes in the state before the storm, now has an extreme growth demand. Hydrologic processes critical to sustaining this marsh system could be undermined by development in the vicinity. LA Highway 1077 floods regularly, not only from storm events, but from strong wind-driven tides that flow into the marsh tract. Improvements to the road system to accommodate development would impede this flow and negatively affect the marsh, causing additional degradation. In addition to conserving the site, by preventing development in the proposed project site, there would be fewer homes to be affected by future storms. Lastly, as in-kind match for this project, the Lake Pontchartrain Basin Maritime Museum is interested in funding an environmental educational boardwalk on the site to promote marsh conservation and local natural heritage.

The proposed tract is wholly owned by Trinity Marine, an industrial ship building company, with a local plant found north of Madisonville. Trinity Marine recently indicated they would entertain an offer for the tract. Estimated value for the site is \$1100 per acre for a total price of \$1,238,600.

7. Project Type:

1. Conservation, restoration and protection of coastal areas, including wetlands
2. Mitigation of damage to fish, wildlife, and natural resources
4. Implementation of a federally approved marine, coastal comprehensive conservation management plan



8. Project Justification:

1. Project is free of issues that may impact timely implementation. Trinity Marine submitted a letter to the town stating they are willing to entertain an offer in May 2006. An appraisal will be completed by Town of Madisonville if the project is approved. The Town of Madisonville is committed to funding restoration and management costs. The Maritime Museum is willing to raise funds for an educational boardwalk.
2. The project is linked to a regional strategy for maintaining established landscape features critical to a sustainable ecosystem structure and function. The site has been identified as a priority conservation site of high ecological significance in several conservation plans for the region including: Coast 2050; Comprehensive Habitat Management Plan for the Lake Pontchartrain Basin (LPBF, 2005); Conservation Area Plan for the Lake Pontchartrain Estuary (TNC, 2004); East Gulf Coastal Plain Ecoregional Plan (TNC 2001); Best Marshes of LA (Jenneke Visser, 2000, unpublished report); Map of Priority Conservation Areas for Lake Pontchartrain Estuary and Vicinity (LPBF and TNC, 2006 in progress). These plans were developed with participation by numerous experts from agencies and the academic community.
3. The proposed project protects health, safety, and infrastructure of regional and local significance. The Tchefuncte River marsh site is an important tropical storm buffer for the Town of Madisonville and helps reduce coastal flooding impacts. The storm surge from Hurricane Katrina was 8 feet on the lake front and only 2 feet in town. Even though elevation changes account for some of this, the Tchefuncte River marsh and cypress swamp undoubtedly helped reduce flooding and damage. Over 130 homes and businesses flooded from Hurricane Katrina, however damage could have been much greater.
4. The proposed project is cost effective. It is possible that parish CIAP or hazard mitigation dollars can be leveraged along with state and local dollars to acquire the tract. The Town of Madisonville has committed to fund stewardship of the site following acquisition.
5. The certainty of benefits resulting from implementation of the proposed project is strong. By maintaining and restoring hydrology, reducing the impacts of invasive species (nutria), and protecting the site from development, the site can only improve in coastal conservation value. The Town of Madisonville has committed to partner with The Nature Conservancy and other experts to develop a conservation management plan and to secure funding to implement necessary long-term stewardship.
6. The site helps address an area of critical conservation and restoration need. As mentioned above under item 2, the marsh systems on the northshore been identified in numerous conservation plans as an important conservation habitat. In addition, the site is important to the health of Lake Pontchartrain and associated fisheries, including Gulf Sturgeon (*Acipenser oxyrinchus desotoi*; federally listed as "Threatened"), which has been documented in the Tchefuncte River. The site may also benefit ecologically significant submersed aquatic vegetation (SAV) along the shore of Lake Pontchartrain just south of the tract.
7. The sustainability of the benefits of the project is expected to be high. With conservation management and maintained hydrologic conditions, the marsh should remain relatively stable.
8. Additional benefits: Site is easily accessible and has been the location of many research efforts by wetland ecologists. Site is a critical part of the heritage of the Town of Madisonville. Seventy-five percent of the incorporated limits of the town are zoned as wetlands. With growth pressures, the town needs assistance in maintain the sites as natural wetlands.

9. Project cost share:

The proposed project could potentially include a match from St. Tammany Parish Government, who is submitting a CIAP proposal that includes monies for acquiring interior fresh marsh and shoreline habitat within the parish. Parish officials have indicated preliminary support for the project. A 5% match of \$61,930 will be leveraged from the Town of Madisonville. In addition, an educational boardwalk leading from the Lake Pontchartrain Basin Maritime Museum could potentially provide additional in-kind match of approximately \$75,000. Thus, total match of CIAP funds will be 11%, and possibly more if St. Tammany Parish participates, for a total project cost of \$1,313,930.



# Tchefuncte Marsh CIAP Proposal (May 2006)

## Trinity Marine Tract

## St. Tammany Parish

Sections 34, 35, 39, 43 T7S-R10E

Sections 2, 3, 37 T8S-R10E

ca. 1126 acres

